

the present specimen grew at some distance from its final resting place and that after a period of desiccation it was brought down by some temporarily swollen stream to the estuary where it finally became water-logged and deposited.

Remains of *Juglans* are not abundant in the Pleistocene deposits and so far as I know nuts have not heretofore been described from our American Pleistocene. In Europe the *Juglans tephrodes* Unger of the Pliocene persists in the Lower Pleistocene of the Netherlands: *Juglans regia* Linné is recorded from a number of Pleistocene localities in France, Italy, and Germany; and fruits practically identical with the present species and described as *Juglans nigra* var. *fossilis* by Kinkelin\* occur in the Upper Pliocene of Germany. Both genera have a long and interesting geological history, the records of *Juglans* antedating those of *Hicoria* by a considerable interval of time, since the first recorded species of the former are found in strata of Mid-Cretaceous age while the latter has not been found as yet until toward the close of the Upper Cretaceous.

JOHNS HOPKINS UNIVERSITY,  
BALTIMORE, MARYLAND

## PROCEEDINGS OF THE CLUB

MARCH 9, 1909

The meeting was called to order at the American Museum of Natural History at 8:30 P. M., with Dr. E. B. Southwick in the chair. About fifty persons were present. After the reading and approval of the minutes of the preceding meeting, the resignation of Mr. E. L. Rogers was read and accepted. The Club then listened to a very interesting lecture on "Ferns" by Mr. Ralph C. Benedict. The lecture was illustrated by lantern slides made from photographs taken by the speaker.

The meeting adjourned.

PERCY WILSON,  
*Secretary*

MARCH 31, 1909

The meeting was held at the Museum of the New York Botanical Garden at 3:30 P. M., with Dr. J. H. Barnhart in the chair.

\* Kink., Senckenb. Abhandl. 29<sup>3</sup>: 237. pl. 30. f. 8, 9. 1908.

Sixteen persons were in attendance. After the reading and approval of the minutes of the preceding meeting, the scientific program was presented. The following abstracts were prepared by the authors :

“ Exploration in the Everglades ”, by Dr. J. K. Small.

“ I was accompanied on my recent expedition by Mr. J. J. Carter, of Pleasant Grove, Pennsylvania.

“ The principal undertaking of the expedition was the exploration of the group of keys forming the southwestern extension of the everglade reef or chain of islands. This group, extending westward from near Camp Jackson for about ten miles and thence southwestward for about eight miles, dies out in the everglades eighteen miles from Cape Sable. It is popularly known as Long Key, and has furnished the basis of much misunderstanding among the native Floridians and superstition among the Seminole Indians.

“ While awaiting the arrival of baggage delayed in transit from the north, we took occasion to visit some of the upper Florida Keys, including the group of Ragged Keys, making notes of observations and complete collections of the plants inhabiting them. Our main object was to determine whether or not Soldier Key and the Ragged Keys really belong to the Florida Keys, from the standpoint of their structure and vegetation. The fact that these islands are members of the Florida Keys was demonstrated in the affirmative by evidence furnished by their coral structure and tropical vegetation. Thus Soldier Key is to be considered the most northern member of the Florida Keys. A glance at a map of that region will also indicate that it is separated from the two islands lying north of it by about five miles of water, including a natural channel. The two islands just referred to, namely, Virginia Key and Key Biscayne, are generally included among the Florida Keys; but a previous study of their structure and vegetation proved them to be merely detached portions of the narrow coastal peninsula, which thus ends at the historic Cape Florida. Soldier Key consists of several acres of partially sand-covered coral-rock with both herbaceous and woody vegetation, the number of species growing there amount-

ing to about five dozen. The Ragged Keys lie about five miles south of Soldier Key and consist of about six islands, the majority of them being larger than Soldier Key.

"The first attempt to reach Long Key was defeated by the high water in the everglades caused by recent rains. While waiting for the water to subside, we visited Key Largo and spent several days exploring the southern portion of that key for a distance of about fifteen miles. We found a considerable original forest about the middle of the key, where four species of cactus were quite common, two spreading opuntias, one spine-armed and one spineless, and two climbing forms, one, a *Cereus*, with three-angled stems, the other, a *Harrisia*, with fluted stems. The leaf-mould in the forest was very deep, in some places covering the coral-rock for a depth of one or two feet, but curiously enough, herbaceous vegetation was almost, if not completely, absent, and places where humus-loving orchids should have grown were barren. In such places the only visible plant not a shrub or tree was the climbing fern, *Phymatodes exiguum*, a tropical American plant known from the United States only on Key Largo. On parts of the key where the forest had been cleared off several plants were found evidently lately introduced from other parts of the tropics.

"The rains having become less frequent and a steady dry southeast wind having set in, Long Key was reached, and a supply-camp established on the eastern end, from which point exploring trips were made to different localities.

"On the most distant island visited we found another tree to add to the arboreous flora of the United States. Returning we crossed portions of the three larger islands which form the backbone of the group, exploring both the pinelands and such hammocks as had not been burned out by recent fires. The flora of the pinelands was both rich and interesting, but that of the small hammocks turned out to be rather disappointing as compared with that of the hammocks twenty miles to the northeast. The larger hammocks certainly contained a more varied flora than the smaller ones, but the fires had been so recent that not a plant could be found in a condition to collect. The second journey was

made along the northern side of the largest key for more than half its length. The everglades seem to be lower on the northern side than on the southern, for we found them submerged, and when the depth of the water prohibited further progress we gradually worked across the key towards the south, and returned to the supply-camp across the higher prairies. A third journey was made along a course close to the southern side of the largest key for eight or nine miles to the west, and then up through the narrow intersecting prairie into the everglades on the north side directly west of the point where we were forced to turn south on the second journey. We then returned to the supply-camp, crossing the largest key through both pinelands and hammocks.

“The last day of the Long Key expedition was devoted to work on Royal Palm Hammock and the two smaller islands adjacent to its western side. Royal Palm Hammock is remarkable for the growth of palms (*Roystonea regia*), from which it takes its name. These trees are visible across the open everglades almost as far as the eye can reach, and curiously enough this species of palm is confined to this island, with the exception of two plants which grow on the small key which lies near its western side and a very few plants which exist on a key about two miles directly east. Royal Palm Hammock is also noted as being the only locality in the United States where several tropical American epiphytic orchids grow naturally.

“We were surprised to meet with a number of plants, both herbaceous and woody, characteristic of more northern or cooler parts of the country. Among the woody plants the more conspicuous were the laurel-leaved greenbrier (*Smilax laurifolia*), Ward’s willow (*Salix longipes*), sweet bay (*Magnolia virginiana*), Virginia creeper (*Parthenocissus quinquefolia*), persimmon (*Diospyros virginiana*), French mulberry (*Callicarpa americana*), and buttonbush (*Cephalanthus occidentalis*). The most interesting of these was the sweet bay, which occurred in diminutive forests, the plants assuming the form of a tree and ranging from one to three feet tall. Their trunks were characteristically buttressed, with a diameter of several inches at the base, tapering to about one half an inch a foot above. The diminutive trees bore both flowers and fruit.

"Our last field work was done on the Vaccas Keys, Crawl Keys, and Grassy Key. We secured a good collection of the plants inhabiting these islands, including some additions to our flora, and a view of the remarkably dense growth of the palm, *Thrinax floridana*, which is well worth a trip there to see."

"Notes on North American Pondweeds", by Mr. Norman Taylor.

"A short historical review of previous treatments of the genus *Potamogeton* shows that Morong (1893) credited 37 species to North America, while Pflanzenreich (1907) lists 42 species and scores of varieties. The forthcoming part of the North American Flora will contain descriptions of only 36 species. A decidedly conservative tendency in the conception of specific limitations accounts for the difference in the number of species, and this is based on a more or less fixed adherence to the principle that in *Potamogeton* fruit characters are the only ones of any real stability.

"The usual characters that have been used by monographers and their relative value for taxonomic purposes, was discussed. As an example of the variability of the group, a series of specimens showing every gradation between the lanceolate leaves of *P. Richardsonii* and the orbicular ones of *P. bupleuroides* was shown, and the contention was advanced that in all probability the three species *P. Richardsonii*, *P. perfoliatus*, and *P. bupleuroides* were in reality one aggregate species with trifling differences."

Discussion followed by Dr. Barnhart, Dr. Rydberg, and the speaker.

The meeting adjourned at 4:30 P. M.

PERCY WILSON,  
Secretary

## REVIEWS

### Ward's Trees\*

The little book, which follows the three volumes on Buds and Twigs, Leaves, and Inflorescences and Flowers, is of course designed primarily for use in England; yet, it will prove helpful in

\* Ward, H. Marshall. *Trees: A Handbook of Forest Botany for the Woodlands and the Laboratory*. Vol. IV. Fruits. Pp. 154. f. 147. 1908. Cambridge, University Press (Putnam's, New York).